rotomy, are most commonly done in a hospital-based or a freestanding facility.

More ambulatory surgical facilities should be developed and used, whenever appropriate, for other surgical specialties as well as gynecology. When this trend toward most cost-effective surgical care reaches its full potential, it will have a major impact in lowering the overall cost of surgical health care, while preserving its high quality.

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The Use of β-Sympathomimetic Drugs for the Inhibition of Premature Labor

ALMOST ALL ORGANS including the uterus have α and β receptors. Stimulation of α receptors causes excitation, while stimulation of the β receptors causes relaxation. The β receptors have been subdivided into β_1 and β_2 receptors: The former are confined to the heart, while the latter are present in the vascular smooth muscle, myometium and bronchial tree.

Stimulation of β-adrenergic receptors has in recent years become the preferred method to inhibit uterine contractions in premature labor. Pharmacologic agents such as isoxsuprine, ritodrine and terbutaline have been employed clinically and with better success rates than achieved with use of alcohol or sedation.

The maternal cardiovascular side effects of β-sympathomimetic drugs include maternal tachycardia, palpitations, increased cardiac output and hypotension. These side effects vary from one agent to another depending on the degree of β_1 receptor stimulation. Whereas, isoxsuprine stimulates the β_1 and β_2 receptors, the other agents have β_2 selectivity. The maternal metabolic side effects are primarily due to muscle glycogenolysis and lipolysis, and include hyperglycemia, lacticidemia, hyperlipemia, hyperkalemia and increased oxygen consumption. Acid-base balance changes indicate acute metabolic acidosis. Compensatory mechanisms come into force after one to six hours of β-sympathomimetic infusions and the above metabolic changes return toward control levels. β-Sympathomimetic drugs cross the placenta and reach the fetus. There is an increase in fetal heart rate and serum glucose, but no change in the mean arterial pressure and acid-base balance when labor-inhibiting doses are used.

Baumgarten suggested the following treatment plan: immediate bed rest, sedation if the patient is very anxious and intravenous infusion of β-sympathomimetic drugs. A low dose schedule is initiated, and the infusion rate is increased every 15 minutes until uterine contractions stop. The labor-blocking dose is maintained for 24 hours, then gradually diminished to the minimum effective dose, which is maintained for another 24 hours. If effective, the intravenous infusion is stopped in 48 hours. Oral administration of the β-sympathomimetics is started in the hospital and continued at home until fetal maturity. The prophylactic use of β-sympathomimetics in patients at risk of premature labor has not been proved.

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Hysteroscopy

MOST HYSTEROSCOPIES may be carried out on an outpatient basis utilizing intravenous meperidine sedation and paracervical block anesthesia. The hysteroscopy should be scheduled in the early follicular phase. Hyskon Hysteroscopy Fluid, a 32 percent solution of dextran with an average molecular weight of 70,000, is not miscible with blood and therefore is the medium of choice.

Hysteroscopy is indicated in patients who have recurrent abnormal uterine bleeding. More than a third of these patients have a submucous myoma or endometrial polyp (or polyps) which may be missed even by the most thorough curettage. These may be resected or removed during hysteroscopy.

Hysteroscopy is indicated in women in whom an intrauterine device (IUD) is palpable within the cavity but cannot be removed and for those in whom the device cannot be felt but is shown (for example, by hysterosalpingogram) to be partially within the uterus.

The major application is in the diagnosis and treatment of intrauterine adhesions. Under direct visualization, the extent, density and location of the adhesions may be determined. Lysis of adhesions under direct vision is easy and safe, complete dissection is assured and normal endometrium is not traumatized. Following dissection of the adhesions, an IUD is placed and high dose estrogen therapy is used for two months.

Because endometrial carcinoma is considered both an indication (for accurate staging) and a

contraindication (possible tumor spread), the final role of hysteroscopy is uncertain. At present few data are available to strongly suggest an important role for hysteroscopy in patients with repeated abortions, congenital anomalies and unexplained infertility.

Contraindications are active uterine bleeding, recent uterine perforation or infection, and pregnancy. Complications (which occurred only rarely among 600 patients) include bleeding, infection, uterine perforation, and reaction to either the anesthestic or the medium used.

In summary, hysteroscopy is an extremely valuable technique for gynecologists. Although the indications are few, this technique greatly enhances our ability to care for patients with the conditions discussed. It is likely that future advances in hysteroscopy will lead to its even wider application.

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The Role of Bromocriptine in Gynecologic Practice

THREE RECENTLY DEVELOPED diagnostic techniques, a radioimmunoassay for prolactin (PRL), hypocycloidal polytomography of the sella turcica and computerized axial tomography (CAT scans), together with the release of the ergot alkaloid 2-Br-α-ergocryptine have signaled the arrival of a new era in medicine. We are now able to *diagnose* and to *treat* ailments which were barely understood at the beginning of the last decade.

It appears that the prevalence of galactorrhea, of pituitary adenomas and of menstrual abnormalities has increased. However, since more sensitive diagnostic techniques are available, we may be searching for these problems more carefully and the increased incidence may only be apparent. Many patients who have galactorrhea and most of those who have pituitary adenoma have hyperprolactinemia.

The use of bromocriptine has been approved only for women who have amenorrhea, galactorrhea and hyperprolectinemia but in whom there is no evidence of a pituitary tumor. A careful investigation is mandatory to select candidates for treatment. Galactorrhea is any unilateral or bilateral breast discharge which is neither purulent nor hemorrhagic in a patient who has not breast-fed nor been pregnant within the preceding 12 months. The presence of fat globules in the secretions confirms the milky nature of the discharge.

All patients with inappropriate lactation should have a serum thyroid stimulating hormone (TSH) determination in addition to a measurement of the PRL concentration. Primary hypothyroidism has been associated with amenorrhea, galactorrhea and hyperprolactinemia. If the TSH level is elevated, thyroid replacement therapy should be instituted. Radiographs of the sella turcica should also be obtained—initially cone views, but if these show no abnormalities, polytomography should be carried out. CAT scans are indicated in women with hyperprolactinemia to rule out a suprasellar mass which may be present even if the sellar architecture remains intact.

Women with hyperprolactinemia usually have oligomenorrhea or amenorrhea because of reduced pituitary FSH and luteinizing hormone production. This reduction then leads to anovulation and menstrual abnormalities. Bromocriptine reverses this defect by a dual action. This dopamine receptor agonist stimulates the release of prolactin-inhibiting factor via hypothalamic centers and also directly inhibits the release of prolactin by the pituitary gland. Serum PRL levels return to normal and thus the inhibition of cyclic pituitary and ovarian function is removed.

Treatment should be started with one 2.5 mg tablet per day to be taken with a meal (to reduce the chance and the severity of nausea). Within four to seven days the dose is doubled and this increase maintained. After four weeks the patient should be reexamined and another serum prolactin level obtained. If the serum PRL level or the amount of galactorrhea (or both) is unchanged, a third tablet should be added. This is the maximum dose. Approximately 80 percent of patients who are treated with bromocriptine respond with a return of serum PRL levels to normal (usually within one to two weeks), the resumption of ovulatory menstrual cycles (usually in four to six weeks) and the cessation of lactation (eight to ten weeks).

Although more than 800 pregnancies secondary to bromocriptine treatment have been reported with no increase in the frequency of congenital anomalies or multiple gestations, this agent may not yet be used for the management of infertility. (It should be remembered that data on more than 2,000 pregnancies had been reviewed before the release of clomiphene.) Therefore, a mechanical